

Essex Regional Retirement System

*Actuarial Valuation and Review
as of January 1, 2006*

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THE PARENT OF THE SEGAL COMPANY
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September 27, 2006

*Retirement Board
Essex Regional Retirement System
491 Maple Street, Suite 202
Danvers, MA 01923-4025*

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of January 1, 2006. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2007 and later years and analyzes the preceding two years' experience.

The census information and financial information on which our calculations were based was prepared by the staff of the Essex Regional Retirement System. That assistance is gratefully acknowledged. The actuarial calculations were completed under my supervision.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

THE SEGAL COMPANY

*By: _____
Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary*

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SECTION 1: Valuation Summary for the Essex Regional Retirement System

Purpose

This report has been prepared by The Segal Company to present a valuation of the Essex Regional Retirement System as of January 1, 2006. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of M.G.L. Chapter 32;
- The characteristics of covered active participants, inactive participants, and retired participants and beneficiaries as of January 1, 2006;
- The assets of the Plan as of December 31, 2005;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- The actuarial valuation report as of January 1, 2006 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected.
- During the plan years ended 2004 and 2005, the market value rate of return was 8.52% and 6.10%, respectively. Because the actuarial value of assets gradually recognizes market value fluctuations over a five-year period, the actuarial rate of return for the plan years ended 2004 and 2005 were 6.91% and 6.76%, respectively. The actuarial value of assets as of December 31, 2005 was \$261.3 million, or 107.0% of the market value of assets of \$244.2 million. As of December 31, 2003, the actuarial value of assets was 107.9% of market value.
- As indicated in Section 2, Subsection B of this report, the total unrecognized investment loss as of December 31, 2005 is \$17.1 million. This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment gains derived from future experience. This implies that earning the assumed rate of investment return of 8.50% per year (net of expenses) on a **market value** basis will result in investment losses on the actuarial value of assets in the next few years. Therefore, if the actual market return is equal to the assumed 8.50% rate and all other actuarial assumptions are met, the contribution requirements will increase more than expected in each of the next few years.

SECTION 1: Valuation Summary for the Essex Regional Retirement System

- The unfunded liability has increased from \$103.5 million as of January 1, 2004 to \$114.3 million as of January 1, 2006 compared to an expected unfunded liability of \$109.0 million. The increase is due to an investment loss and the assumption changes noted below, partially offset by an experience gain (see Exhibit E in Section 3 for more detail).
- This valuation reflects the following:
 - The administrative expense assumption was increased from \$725,000 for calendar 2004 to \$900,000 for calendar 2006.
 - A liability for a deferred retirement allowance has been calculated for inactive vested members with a reported final average salary.
 - In 2004, the Public Employee Retirement Administration Commission approved a new mortality table and interest rate to be used in the calculation of the optional form of payment factors. This valuation reflects the change to the new factors.

Changing these assumptions resulted in a net increase in the liability of \$2,383,798.

- Because the fiscal 2007 appropriation was set at the previously budgeted amount of \$15,274,181, the results of this valuation will first be reflected in the fiscal 2008 appropriation of \$16,278,569, a 6.6% increase over fiscal 2007. The current funding schedule amortized the unfunded liability by June 30, 2028 (shorter amortization of certain ERI liabilities).

SECTION 1: Valuation Summary for the Essex Regional Retirement System

Summary of Key Valuation Results

	2006	2004
Contributions:		
Recommended for fiscal 2007 and 2005	\$15,274,181	\$12,771,655
Recommended for fiscal 2008 and 2006	16,278,569	14,048,820
Funding elements for plan year beginning January 1:		
Normal cost, including administrative expenses	\$15,635,644	\$14,488,121
Market value of assets	244,246,069	213,003,325
Actuarial value of assets	261,327,047	229,852,971
Actuarial accrued liability	375,593,562	333,396,222
Unfunded actuarial accrued liability	114,266,515	103,543,251
GASB 25/27:		
Annual required contributions	\$15,274,181	\$12,223,776
Actual contributions	--	12,223,776
Percentage contributed	--	100.00%
Funded ratio	69.58%	68.94%
Demographic data for plan year beginning January 1:		
Number of retired participants and beneficiaries	1,508	1,498
Number of inactive participants entitled to a return of their employee contributions	844	1,003
Number of inactive participants with a vested right to a deferred or immediate benefit	43	N/A
Number of active participants	2,949	3,035
Total payroll	\$94,122,574	\$89,119,646
Average payroll	31,917	29,364

SECTION 2: Valuation Results for the Essex Regional Retirement System

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, inactive participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A and B.

A historical perspective of how the participant population has changed over the past six valuations can be seen in this chart.

CHART 1

Participant Population: 1995 – 2005

Year Ended December 31	Active Participants	Inactive Participants	Retired Participants and Beneficiaries
1995	2,900	349	1,409
1997	3,126	461	1,402
1999	2,835	626	1,429
2001	3,023	940	1,424
2003	3,035	1,003	1,498
2005	2,949	887	1,508

SECTION 2: Valuation Results for the Essex Regional Retirement System

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 2,949 active participants with an average age of 47.1, average years of service of 8.8 years and average payroll of \$31,917. The 3,035 active participants in the prior valuation had an average age of 45.9, average service of 8.2 years and average payroll of \$29,364.

Among the active participants, there were 11 participants with unknown age. The actuarial calculations were adjusted for the missing information by assuming that it was the same as information provided for other active participants with similar known characteristics.

Inactive Participants

In this year's valuation, there were 43 participants with a vested right to a deferred or immediate vested benefit and 844 participants entitled to a return of their employee contributions.

These graphs show a distribution of active participants by age and by years of service.

CHART 2

Distribution of Active Participants by Age as of December 31, 2005

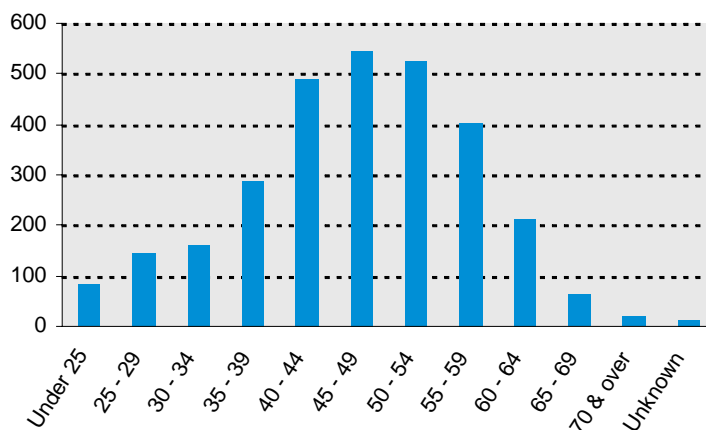
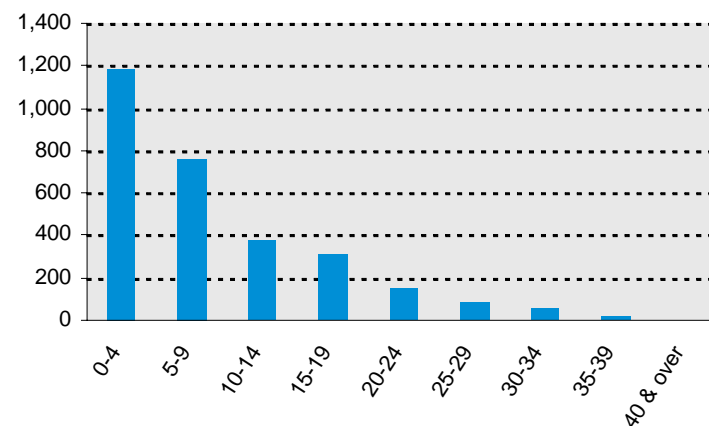


CHART 3

Distribution of Active Participants by Years of Service as of December 31, 2005



SECTION 2: Valuation Results for the Essex Regional Retirement System

Retired Participants and Beneficiaries

As of December 31, 2005, 1,288 retired participants and 220 beneficiaries were receiving total monthly benefits of \$1,747,997 excluding COLAs reimbursed by the Commonwealth. For comparison, in the previous valuation, there were 1,272 retired participants and 226 beneficiaries receiving monthly benefits of \$1,509,750 excluding COLAs reimbursed by the Commonwealth.

These graphs show a distribution of the current retired participants and beneficiaries based on their monthly amount and age, by type of pension.

CHART 4

Distribution of Retired Participants and Beneficiaries by Type and by Monthly Amount as of December 31, 2005

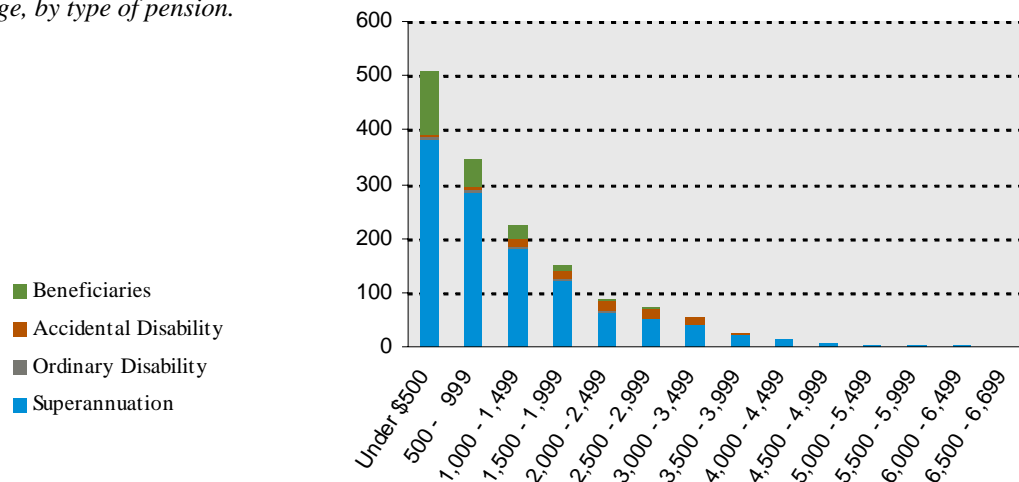
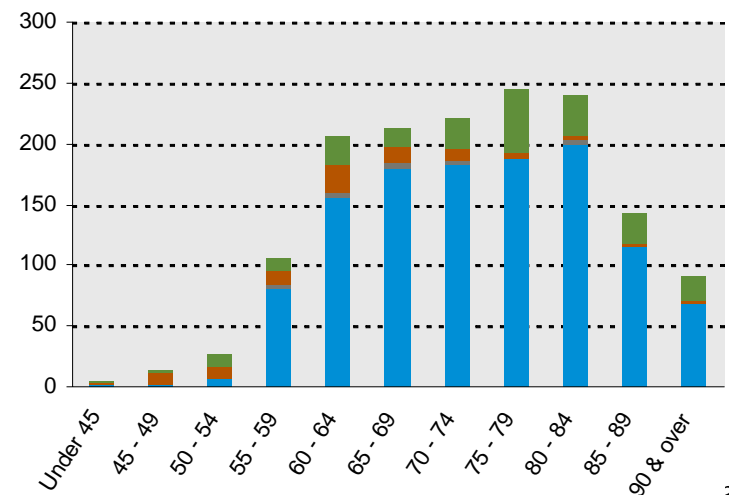


CHART 5

Distribution of Retired Participants and Beneficiaries by Type and by Age as of December 31, 2005



SECTION 2: Valuation Results for the Essex Regional Retirement System

B. FINANCIAL INFORMATION

Retirement plan funding anticipates that, over the long term, both net contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components.

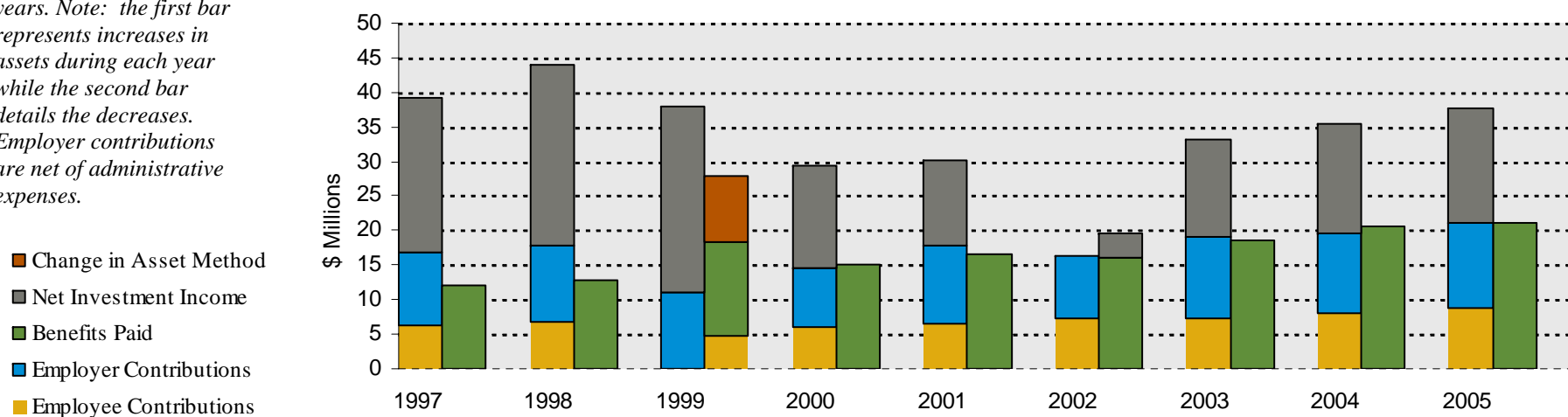
Employee contributions for 1999 reflect the transfer of County employees to the State Retirement System following the elimination of the Essex County Government.

Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits C and D.

The chart depicts the components of changes in the actuarial value of assets over the last nine years. Note: the first bar represents increases in assets during each year while the second bar details the decreases. Employer contributions are net of administrative expenses.

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 1997 – 2005



SECTION 2: Valuation Results for the Essex Regional Retirement System

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7 Determination of Actuarial Value of Assets

	Year Ended	
	December 31, 2005	December 31, 2004
1. Actuarial value of assets	\$244,670,693	\$229,852,971
2. Contributions, less benefit payments and expenses during the year	124,307	-1,029,304
3. Average actuarial value of assets: (1) + [50% of (2)]	244,732,847	229,338,319
4. Expected investment income: .085 x (3)	20,802,292	19,493,757
5. Preliminary actuarial value of assets at the end of the year: (1) + (2) + (4)	265,597,292	248,317,424
6. Market value of assets at the end of the year	244,246,069	230,083,769
7. Adjustment toward market value: 20% of [(6) - (5)]	-4,270,245	-3,646,731
8. Adjustment to be within 20% corridor	0	0
9. Final actuarial value of assets: (5) + (7) + (8)	<u>\$261,327,047</u>	<u>\$244,670,693</u>
10. Actuarial value as a percentage of market value: (9) ÷ (6)	107.0%	106.3%

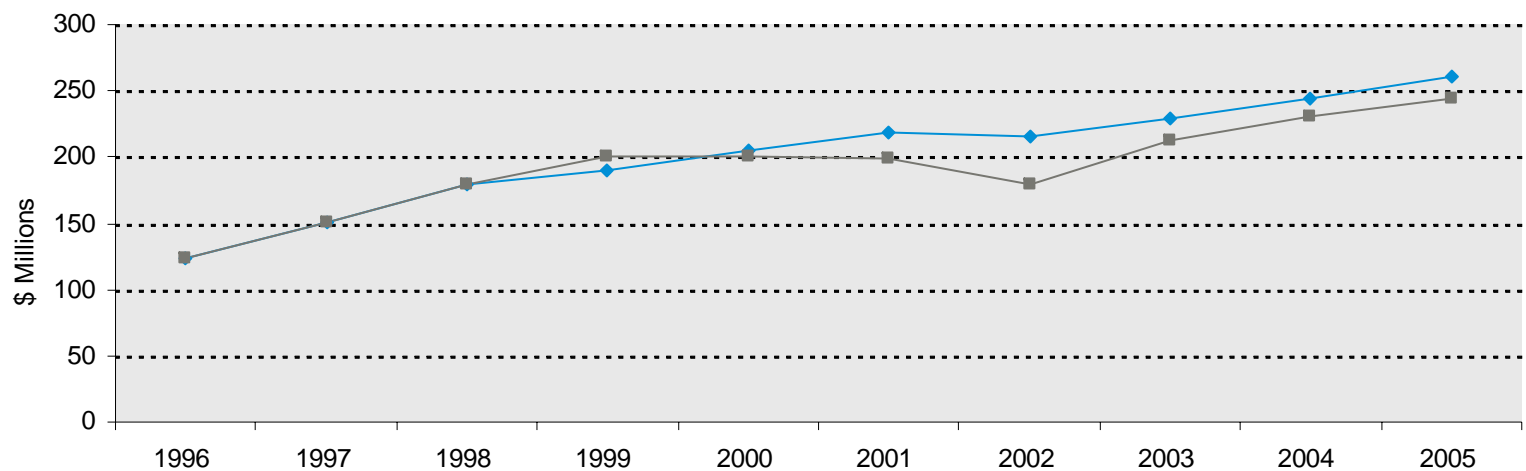
SECTION 2: Valuation Results for the Essex Regional Retirement System

Both the actuarial value and market value of assets are representations of the Essex Regional Retirement System's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Essex Regional Retirement System's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the market value over the past ten years.

CHART 8

Actuarial Value of Assets vs. Market Value of Assets as of December 31, 1996 – 2005



SECTION 2: Valuation Results for the Essex Regional Retirement System

C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss over the past two years is \$2,920,411. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience over the past two years.

CHART 9

Actuarial Experience for Two-Year Period Ended December 31, 2005

1. Net (loss) from investments*	-\$7,916,976
2. Net (loss) from administrative expenses	-8,997
3. Net gain from other experience**	<u>5,005,562</u>
4. Net experience (loss): (1) + (2) + (3)	-\$2,920,411

* Details in Chart 10

** Details in Chart 13

SECTION 2: Valuation Results for the Essex Regional Retirement System

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Essex Regional Retirement System's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 8.50%. The actual rate of return on an actuarial basis for the 2005 and 2004 plan years was 6.76% and 6.91%, respectively.

Since the actual return for the year was less than the assumed return, the Essex Regional Retirement System experienced an actuarial loss of \$7,916,967 during the two-year period ending December 31, 2005 with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

CHART 10 Actuarial Value Investment Experience

	Year Ended	
	December 31, 2005	December 31, 2004
1. Actual return	\$16,532,047	\$15,847,026
2. Average value of assets	244,732,847	229,338,319
3. Actual rate of return: (1) ÷ (2)	6.76%	6.91%
4. Assumed rate of return	8.50%	8.50%
5. Expected return: (2) x (4)	\$20,802,292	\$19,493,757
6. Actuarial gain/(loss): (1) – (5)	<u>-\$4,270,245</u>	<u>-\$3,646,731</u>

SECTION 2: Valuation Results for the Essex Regional Retirement System

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last ten years, including five-year and ten-year averages.

Based upon this experience and future expectations, we have maintained the assumed rate of return of 8.50%.

CHART 11

Investment Return – Actuarial Value vs. Market Value: 1996 - 2005

Year Ended December 31	Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent
1996	\$13,834,571	12.79%	\$13,834,571	12.79%
1997	22,380,523	17.70	22,380,523	17.70
1998	25,963,975	17.14	25,963,975	17.14
1999	17,379,065	9.85	26,882,041	15.23
2000	14,947,945	7.86	603,619	0.30
2001	12,428,468	6.05	-2,834,776	-1.41
2002	-3,439,919	-1.57	-19,207,385	-9.68
2003	14,104,284	6.55	33,126,697	18.44
2004	15,847,026	6.91	18,109,749	8.52
2005	<u>16,532,047</u>	6.76	<u>14,037,992</u>	6.10
Total	\$149,977,984		\$132,897,006	
	Five-year average return	4.98%		4.23%
	Ten-year average return	8.04%		7.45%

Note: Each year's yield is weighted by the average asset value in that year.

SECTION 2: Valuation Results for the Essex Regional Retirement System

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

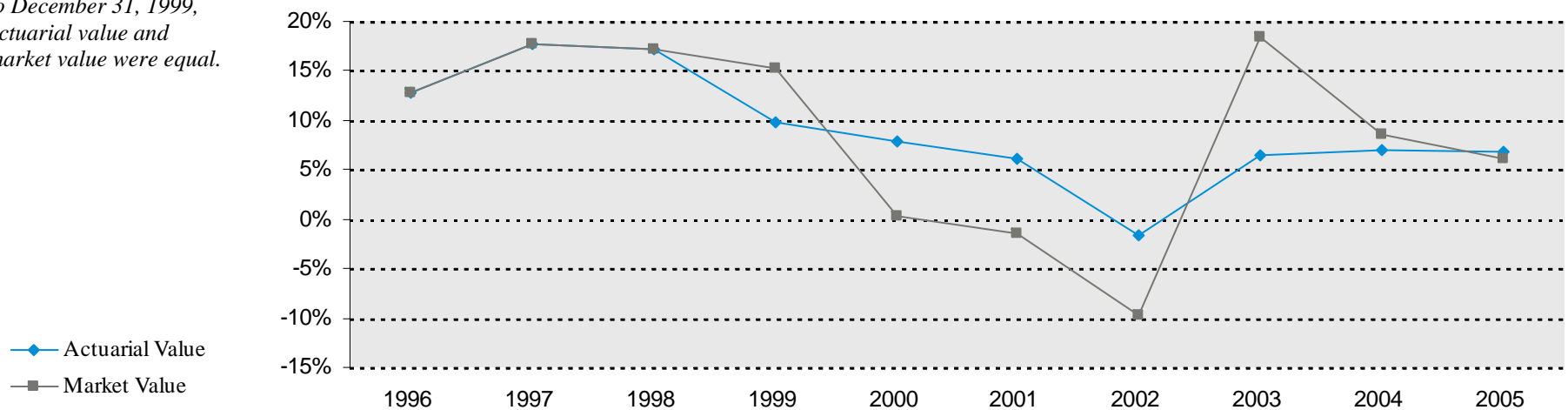
Administrative Expenses

Administrative expenses for the years ended December 31, 2004 and 2005 were \$705,375 and \$816,262 compared to the assumption of \$725,000 for calendar 2004 and \$757,625 for calendar 2005. This resulted in a loss of \$8,997 for the two-year period, including an adjustment for interest. We have increased the assumption to \$900,000 for calendar 2006.

This chart illustrates how this leveling effect has actually worked over the years 1996 - 2005. Prior to December 31, 1999, actuarial value and market value were equal.

CHART 12

Market and Actuarial Rates of Return for Years Ended December 31, 1996 - 2005



SECTION 2: Valuation Results for the Essex Regional Retirement System

Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the two-year period ending December 31, 2005 amounted to \$5,005,563 which is 1.3% of the actuarial accrued liability. A brief summary of the demographic gain/(loss) experience of the Essex Retirement System for the two-year period ending December 31, 2005 is shown in the chart below. A component of the miscellaneous gain is fewer disability retirements than expected.

With this valuation we recommend the following assumption changes:

- The administrative expense assumption was increased from \$725,000 for calendar 2004 to \$900,000 for calendar 2006.
- A liability for a deferred retirement allowance has been calculated for inactive vested members with a reported final average salary.
- In 2004, the Public Employee Retirement Administration Commission approved a new mortality table and interest rate to be used in the calculation of the optional form of payment factors. This valuation reflects the change to the new factors.

Changing these assumptions resulted in a net increase in the actuarial accrued liability of \$2,383,798 and an increase in the employer normal cost of \$199,774.

The chart shows elements of the experience gain/(loss) for the most recent years.

CHART 13

Experience Due to Changes in Demographics for Two-Year Period Ended December 31, 2005

1. Salary increases less than expected for continuing actives	\$1,182,204
2. Miscellaneous gain, including fewer disability retirements than expected	<u>3,823,359</u>
3. Total	\$5,005,563

SECTION 2: Valuation Results for the Essex Regional Retirement System

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability.

The preliminary recommended contribution of \$15,585,683 is based on a 2-year level amortization of the 1992 ERI liability, schedules as elected by the units for the 2002 and 2003 ERI liabilities, and a 22-year increasing (4.50% per year) amortization of the remaining unfunded liability.

Because the fiscal 2007 appropriation has already been budgeted at \$15,274,181, the results of this valuation will first be reflected in the fiscal 2008 appropriation of \$16,278,569. This represents a 6.6% increase over the fiscal 2007 appropriation.

Exhibit G in Section 3 shows the recommended contributions through fiscal 2028 based on this funding schedule. The current funding schedule fully amortizes the unfunded liability by June 30, 2028.

The chart compares this valuation's recommended contribution with the prior valuation.

CHART 14
Recommended Contribution

	Year Beginning January 1			
	2006		2004	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	\$14,735,644	14.94%	\$13,763,121	14.74%
2. Administrative expenses	900,000	0.91%	725,000	0.77%
3. Expected employee contributions	<u>-8,676,522</u>	<u>-8.80%</u>	<u>-8,018,118</u>	<u>-8.58%</u>
4. Employer normal cost: (1) + (2) + (3)	\$6,959,122	7.05%	\$6,470,003	6.93%
5. Actuarial accrued liability	375,593,562		333,396,222	
6. Actuarial value of assets	<u>261,327,047</u>		<u>229,852,971</u>	
7. Unfunded actuarial accrued liability: (5) - (6)	\$114,266,515		\$103,543,251	
8. Employer normal cost projected to July 1, 2006 and 2004, adjusted for timing	7,260,559	7.20%	6,750,253	7.07%
9. Projected unfunded actuarial accrued liability	119,023,811		107,854,102	
10. Payment on projected unfunded actuarial accrued liability, adjusted for timing	8,325,124	8.26%	6,974,991	7.30%
11. Preliminary recommended contribution: (8) + (10)	15,585,683	15.46%	13,725,244	14.37%
12. Budgeted appropriation	<u>\$15,274,181</u>	15.15%	<u>\$12,771,655</u>	<u>13.38%</u>
13. Projected payroll	\$100,836,097		\$95,482,467	

Note: Recommended contributions are assumed to be paid on July 1 and December 31.

SECTION 2: Valuation Results for the Essex Regional Retirement System

Reconciliation of Recommended Contribution

The chart below details the changes in the preliminary recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.

CHART 15

Reconciliation of Preliminary Recommended Contribution from July 1, 2004 to July 1, 2006

Preliminary Recommended Contribution as of July 1, 2004	\$13,725,244
Expected increase	\$1,548,937
Effect of investment loss	551,744
Effect of changes in actuarial assumptions	365,904
Effect of net other changes	<u>-606,146</u>
Total change	<u>\$1,860,439</u>
Preliminary Recommended Contribution as of July 1, 2006	\$15,585,683

SECTION 2: Valuation Results for the Essex Regional Retirement System

E. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with the GASB funding requirements. Chart 16 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the

actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

Although GASB requires that the actuarial value of assets be used to determine the funded ratio, Chart 17 shows the funded ratio calculated using both the actuarial value of assets and the market value of assets.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

These graphs show key GASB factors.

CHART 16

Required Versus Actual Contributions

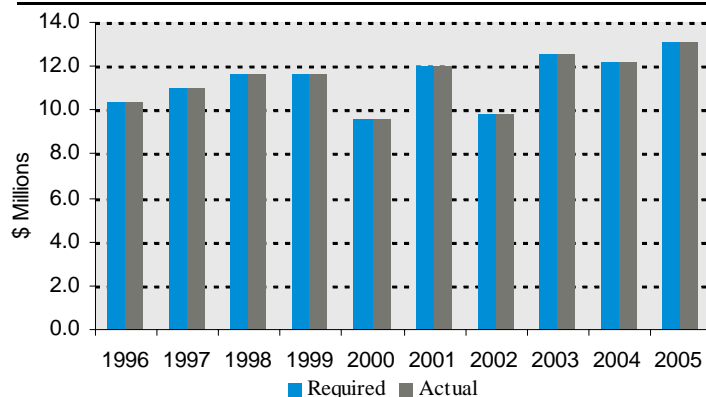
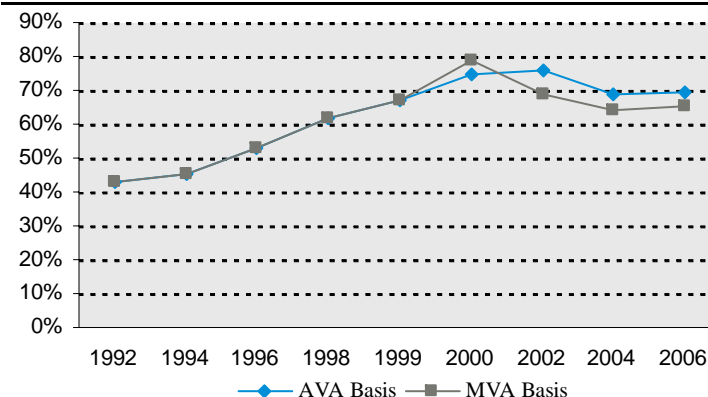


CHART 17

Funded Ratio



SECTION 3: Supplemental Information for the Essex Regional Retirement System

EXHIBIT A

Table of Plan Coverage

	Year Ended December 31		Change From Prior Year
Category	2005	2003	
Active participants in valuation:			
Number	2,949	3,035	-2.8%
Average age	47.1	45.9	N/A
Average service	8.8	8.2	N/A
Total payroll	\$94,122,574	\$89,119,646	5.6%
Average payroll	31,917	29,364	8.7%
Account balances	66,890,498	59,453,781	12.5%
Number with unknown age	11	41	-73.2%
Inactive participants with a vested right to a deferred or immediate benefit	43	N/A	N/A
Inactive participants entitled to a return of their contributions	844	1,003	N/A
Retired participants:			
Number in pay status	1,178	1,163	1.3%
Average age	74.0	73.9	N/A
Average monthly benefit	\$1,178	\$1,023	15.2%
Disabled participants:			
Number in pay status	110	109	0.9%
Average age	63.3	63.4	N/A
Average monthly benefit	\$1,862	\$1,675	11.2%
Beneficiaries in pay status	220	226	-2.7%

SECTION 3: Supplemental Information for the Essex Regional Retirement System

EXHIBIT B

Participants in Active Service as of December 31, 2005 By Age, Years of Service, and Average Payroll

Age	Years of Service									
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	84	84	--	--	--	--	--	--	--	--
	\$19,829	\$19,829	--	--	--	--	--	--	--	--
25 - 29	146	116	30	--	--	--	--	--	--	--
	\$27,348	\$25,922	\$32,863	--	--	--	--	--	--	--
30 - 34	162	90	61	9	2	--	--	--	--	--
	\$36,451	\$33,298	\$39,887	\$44,583	\$36,910	--	--	--	--	--
35 - 39	288	139	72	48	28	1	--	--	--	--
	\$33,945	\$24,340	\$34,831	\$49,243	\$52,057	\$63,871	--	--	--	--
40 - 44	491	231	129	45	66	18	2	--	--	--
	\$30,937	\$22,746	\$28,636	\$44,924	\$48,106	\$51,667	\$57,418	--	--	--
45 - 49	543	214	156	69	56	39	8	1	--	--
	\$30,554	\$21,774	\$26,478	\$35,777	\$47,202	\$54,269	\$62,500	\$72,466	--	--
50 - 54	524	154	152	75	57	28	36	20	2	--
	\$33,183	\$23,788	\$28,267	\$30,292	\$40,758	\$56,673	\$62,222	\$43,316	\$69,772	--
55 - 59	404	90	96	76	60	26	27	22	7	--
	\$33,955	\$22,657	\$32,498	\$29,716	\$36,967	\$36,788	\$50,833	\$58,303	\$67,252	--
60 - 64	214	41	41	43	32	29	8	9	7	4
	\$33,505	\$24,368	\$28,801	\$32,182	\$39,941	\$31,129	\$45,407	\$55,424	\$47,626	\$57,492
65 - 69	64	13	17	10	10	10	3	--	1	--
	\$29,054	\$16,015	\$26,149	\$27,404	\$35,259	\$39,551	\$50,329	--	\$33,572	--
70 & over	18	4	3	1	3	4	--	1	2	--
	\$27,185	\$7,135	\$17,181	\$22,822	\$35,421	\$32,963	--	\$1,400	\$73,462	--
Unknown	11	10	1	--	--	--	--	--	--	--
	\$34,352	\$34,056	\$37,310	--	--	--	--	--	--	--
Total	2,949	1,186	758	376	314	155	84	53	19	4
	\$31,917	\$23,816	\$30,187	\$35,814	\$43,401	\$45,702	\$56,447	\$51,352	\$59,168	\$57,492

SECTION 3: Supplemental Information for the Essex Regional Retirement System

EXHIBIT C

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended December 31, 2005	Year Ended December 31, 2004
Contribution income:		
Employer contributions	\$12,958,665	\$12,126,061
Employee contributions	8,906,195	8,079,621
Federal grant reimbursement	121,346	97,715
Less administrative expenses	<u>-816,262</u>	<u>-705,375</u>
Net contribution income	\$21,169,944	\$19,598,022
Net investment income	<u>16,532,047</u>	<u>15,847,026</u>
Total income available for benefits	\$37,701,991	\$35,445,048
Less benefit payments:		
Pensions and annuities	-\$19,691,531	-\$19,258,581
Net (8)c reimbursements	-22,141	18,913
Refunds to members	<u>-1,331,965</u>	<u>-1,387,658</u>
Net benefit payments	-\$21,045,637	-\$20,627,326
Change in reserve for future benefits	\$16,656,354	\$14,817,722

SECTION 3: Supplemental Information for the Essex Regional Retirement System

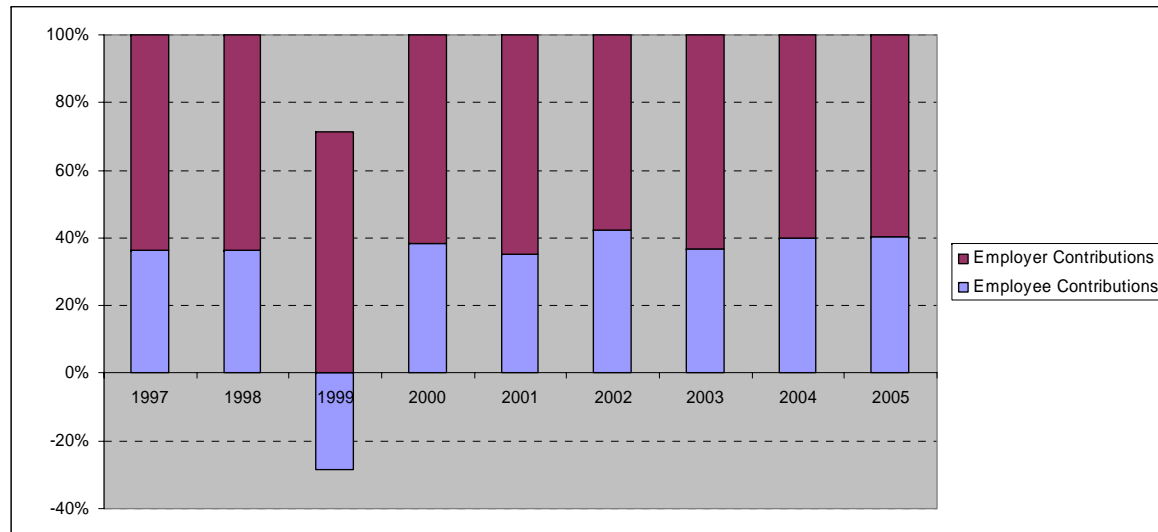
EXHIBIT D

Development of the Fund Through December 31, 2005 and Comparison of Employer and Employee Contributions

Year Ended December 31	Employer Contributions	Employee Contributions*	Employee Contributions as a Percent of Total Contributions	Other Contributions	Net Investment Return**	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
1997	\$11,028,739	\$6,300,509	36.34%	\$8,981	\$22,380,523	\$490,875	\$11,950,228	\$151,293,926
1998	11,668,239	6,671,730	36.35%	11,866	25,963,975	432,057	12,748,299	180,034,664
1999	11,588,914	-4,662,709	-66.83%	50,776	17,379,065	413,112	13,613,882	190,363,716
2000	9,567,297	5,935,785	38.21%	30,972	14,947,945	1,018,310	15,048,275	204,779,130
2001	11,977,601	6,517,779	35.17%	36,960	12,428,468	723,373	16,670,367	218,346,198
2002	9,790,796	7,250,128	42.42%	49,268	-3,439,919	640,963	16,123,146	215,232,362
2003	12,454,333	7,302,261	36.85%	62,236	14,104,284	659,662	18,642,842	229,852,971
2004	12,126,061	8,079,621	39.79%	97,715	15,847,026	705,375	20,627,326	244,670,693
2005	12,958,665	8,906,195	40.51%	121,346	16,532,047	816,262	21,045,637	261,327,047

* Employee contributions for 1999 reflect the transfer of County employees to the State Retirement System following the elimination of the Essex County Government.

** Net of investment fees



Note: Other contributions have been included with employer contribution for the purposes of this graph.

SECTION 3: Supplemental Information for the Essex Regional Retirement System

EXHIBIT E

Development of Unfunded Actuarial Accrued Liability and (Gain)/Loss

	Year Ended	
	December 31, 2005	December 31, 2004
1. Unfunded actuarial accrued liability at beginning of year	\$106,652,409	\$103,543,251
2. Normal cost at beginning of year	15,140,086	14,488,121
3. Total contributions	-21,986,206	-20,303,397
4. Interest		
(a) For whole year on (1) + (2)	\$10,352,362	\$10,032,667
(b) For half year on (3)	<u>-1,196,346</u>	<u>-1,108,233</u>
(c) Total interest	<u>9,156,016</u>	<u>8,924,434</u>
5. Expected unfunded actuarial accrued liability	\$108,962,305	\$106,652,409
6. Changes due to:		
(a) Investment loss	\$7,916,976	--
(b) Assumption changes	2,383,798	--
(c) Miscellaneous gain	<u>-4,996,564</u>	--
(d) Total changes	<u>5,304,210</u>	--
7. Unfunded actuarial accrued liability at end of year	<u>\$114,266,515</u>	--

SECTION 3: Supplemental Information for the Essex Regional Retirement System

EXHIBIT F

Table of Amortization Bases as of July 1, 2006

Type	Annual Payment	Years Remaining	Outstanding Balance
1992 ERI liability	\$41,019	2.00	\$77,233
2002 ERI liability	453,386	varies	3,252,662
2003 ERI liability	214,572	varies	1,859,901
Remaining unfunded liability	<u>7,616,147</u>	22.00	<u>113,834,015</u>
Total	\$8,325,124		\$119,023,811

Notes: Payments include adjustment for timing.

Does not reflect adjustment to set fiscal 2007 appropriation to budgeted amount.

Refer to Exhibit G for information on payments in fiscal year 2008 and later.

SECTION 3: Supplemental Information for the Essex Regional Retirement System

EXHIBIT G

Funding Schedule

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of 1992 ERI Liability	(4) Amortization of 2002 ERI Liability	(5) Amortization of 2003 ERI Liability	(6) Amortization of Remaining Unfunded Liability	(7) Total Plan Cost: (2) + (3) + (4) + (5) + (6)	(8) Total Unfunded Accrued Liability
2007	\$7,260,559	\$41,019	\$453,386	\$214,572	\$7,304,645	\$15,274,181	\$119,023,811
2008	7,587,284	41,019	453,624	214,932	7,981,710	16,278,569	120,621,589
2009	7,928,712	-	453,873	215,164	8,340,887	16,938,636	121,634,758
2010	8,285,504	-	364,378	215,406	8,716,227	17,581,515	122,395,302
2011	8,658,352	-	364,650	215,658	9,108,457	18,347,117	122,916,355
2012	9,047,978	-	364,933	215,922	9,518,337	19,147,170	123,064,162
2013	9,455,137	-	365,230	216,199	9,946,662	19,983,228	122,788,210
2014	9,880,618	-	365,541	216,488	10,394,262	20,856,909	122,032,841
2015	10,325,246	-	365,865	216,789	10,862,004	21,769,904	120,736,786
2016	10,789,882	-	366,204	217,104	11,350,794	22,723,984	118,832,648
2017	11,275,427	-	366,558	217,434	11,861,580	23,720,999	116,246,332
2018	11,782,821	-	366,928	217,778	12,395,351	24,762,878	112,896,438
2019	12,313,048	-	367,315	218,138	12,953,142	25,851,643	108,693,594
2020	12,867,135	-	9,379	218,513	13,536,033	26,631,060	103,539,729
2021	13,446,156	-	9,802	9,121	14,145,154	27,610,233	97,708,238
2022	14,051,233	-	10,243	9,531	14,781,686	28,852,693	90,955,671
2023	14,683,538	-	10,704	9,960	15,446,862	30,151,064	82,951,537
2024	15,344,297	-	11,186	10,408	16,141,971	31,507,862	73,558,959
2025	16,034,790	-	11,689	10,876	16,868,360	32,925,715	62,628,056
2026	16,756,356	-	12,215	11,365	17,627,436	34,407,372	49,994,773
2027	17,510,392	-	12,765	11,878	18,420,670	35,955,705	35,479,612
2028	18,298,360	-	13,339	12,412	19,249,600	37,573,711	18,886,249

Notes: Recommended contributions are assumed to be paid on July 1 and December 31.
Assumes contribution of budgeted amount for fiscal year 2007.

SECTION 3: Supplemental Information for the Essex Regional Retirement System

EXHIBIT H

Unit Allocation of ERI Amortizations

Fiscal 2007 Allocation of 1992, 2002 and 2003 ERI Amortizations

Unit	1992 ERI	2002 ERI	2003 ERI
Boxford	\$14,812	--	--
Essex Agricultural School	--	\$89,758	--
Essex Regional Retirement Board	--	18,460	\$14,742
Georgetown	--	59,567	20,532
Groveland	--	--	4,787
Hamilton	15,342	--	--
Ipswich Housing Authority	6,512	27,294	--
Lynnfield	--	--	146,991
Lynnfield Water	4,353	--	--
Merrimac	--	38,918	7,448
Nahant Housing Authority	--	5,292	--
North Andover Housing	--	--	13,711
Pentucket Regional School District	--	31,672	6,361
Rockport	--	8,052	--
Salisbury	--	103,401	--
Triton Regional School District	--	30,993	--
West Newbury	--	29,687	--
Wenham Housing	--	6,170	--
Essex Housing	--	<u>4,122</u>	<u>--</u>
Total	\$41,019	\$453,386	\$214,572

Notes: 1992 ERI payments are level (ending in fiscal 2008).

2002 ERI payments are level (ending in fiscal 2019), except Essex Agricultural School (level, ending in fiscal 2009) and Nahant Housing (4.5% increasing, ending in fiscal 2028).

2003 ERI payments are level (ending in fiscal 2020), except for Groveland (4.5% increasing, ending in 2028).

Payments include adjustment for timing.

SECTION 3: Supplemental Information for the Essex Regional Retirement System

EXHIBIT I

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial

Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost:

The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability

For Actives:

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability

For Pensioners:

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded Actuarial Accrued Liability:

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

SECTION 3: Supplemental Information for the Essex Regional Retirement System

Amortization of the Unfunded

Actuarial Accrued Liability: Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment Return:

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

SECTION 4: Reporting Information for the Essex Regional Retirement System

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1. Retired participants as of the valuation date (including 220 beneficiaries in pay status)	1,508
2. Participants active during the year ended December 31, 2005 (including 11 participants with unknown age) with total accumulated contributions of \$66,890,498 and projected payroll of \$98,641,094	2,949
3. Inactive participants with a right to a return of their employee contributions as of December 31, 2005	844
4. Inactive participants with a vested right to a deferred or immediate benefit as of December 31, 2005	43

The actuarial factors as of the valuation date are as follows:

1. Normal cost	\$14,735,644
2. Administrative expenses	900,000
3. Expected employee contributions	<u>-8,676,522</u>
4. Employer normal cost: (1) + (2) + (3)	\$6,959,122
5. Actuarial accrued liability	375,593,562
Retired participants and beneficiaries	\$190,069,181
Active participants	178,988,009
Inactive participants	6,536,372
6. Actuarial value of assets (\$244,246,069 at market value)	261,327,047
7. Unfunded actuarial accrued liability: (5) – (6)	114,266,515

The determination of the recommended contribution is as follows:

1. Projected employer normal cost, adjusted for timing	\$7,260,559
2. Projected unfunded actuarial accrued liability	119,023,811
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	8,325,124
4. Preliminary recommended contribution: (1) + (3)	15,585,683
5. Budgeted appropriation	15,274,181
6. Projected payroll	100,836,097

Note: Recommended contributions are assumed to be paid on July 1 and December 31.

SECTION 4: Reporting Information for the Essex Regional Retirement System

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed
1996	\$10,394,728	\$10,394,728	100.0%
1997	11,037,720	11,037,720	100.0%
1998	11,680,106	11,680,106	100.0%
1999	11,639,690	11,639,690	100.0%
2000	9,598,269	9,598,269	100.0%
2001	12,014,561	12,014,561	100.0%
2002	9,840,064	9,840,064	100.0%
2003	12,516,569	12,516,569	100.0%
2004	12,223,776	12,223,776	100.0%
2005	13,080,011	13,080,011	100.0%

SECTION 4: Reporting Information for the Essex Regional Retirement System

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date*	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
01/01/1992	\$61,357,800	\$143,785,900	\$82,428,100	42.67%	\$52,995,500	155.54%
01/01/1994	80,878,500	178,256,800	97,378,300	45.37%	62,076,500	156.87%
01/01/1996	106,176,700	200,397,500	94,220,800	52.98%	72,953,200	129.15%
01/01/1998	151,293,900	245,965,100	94,671,200	61.51%	85,785,000	110.36%
01/01/1999	180,034,700	268,386,000	88,351,300	67.08%	89,645,300	98.56%
01/01/2000	190,363,700	253,847,100	63,483,400	74.99%	69,525,900	91.31%
01/01/2002	218,346,198	287,390,715	69,044,517	75.98%	85,005,338	81.22%
01/01/2004	229,852,971	333,396,222	103,543,251	68.94%	93,404,002	110.86%
01/01/2006	261,327,047	375,593,562	114,266,515	69.58%	98,641,094	115.84%

* Years for which an actuarial valuation was not performed are omitted.

SECTION 4: Reporting Information for the Essex Regional Retirement System

EXHIBIT IV

Supplementary Information Required by the GASB

Valuation date	January 1, 2006
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Approximate level percent of payroll based on 4.5% annual increases; except level dollar for ERI liability for certain units
Remaining amortization period	As of July 1, 2006, 2 years remaining for 1992 ERI liability; schedules as selected by the units for 2002 ERI liability, schedules as selected by units for 2003 ERI liability and 22 years for remaining unfunded liability.
Asset valuation method	A preliminary actuarial value is first determined by taking the actuarial value of assets at the beginning of the year and adding assumed investment earnings (at the assumed actuarial rate of return) and the net new money during the year (contributions less benefit payments and administrative expenses). Twenty percent of the difference between the market value of assets and the preliminary actuarial value is added to the preliminary actuarial value. In order that the actuarial value not differ to significantly from the market value of assets, the final actuarial value of assets must be within 20% of the market value of assets.

Actuarial assumptions:	
Investment rate of return	8.50%
Projected salary increases	5.00%
Cost of living adjustments	3.00% of first \$12,000 of retirement income

Plan membership:	
Retired participants and beneficiaries receiving benefits	1,508
Inactive participants entitled to a return of their employee contributions	844
Inactive participants with a vested right to a deferred or immediate benefit	43
Active participants	<u>2,949</u>
Total	5,344

SECTION 4: Reporting Information for the Essex Regional Retirement System

EXHIBIT V

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

<i>Healthy:</i>	1994 Group Annuity Mortality Table
<i>Disabled:</i>	PBGC Mortality Table for Disabled Lives Receiving Social Security Disability Benefits

Termination Rates before Retirement:

Groups 1 and 2 Rate (%)

Mortality

Age	Male	Female	Disability	Withdrawal
20	0.05	0.03	0.06	12.00
25	0.07	0.03	0.09	8.78
30	0.08	0.04	0.11	5.55
35	0.09	0.05	0.15	3.93
40	0.11	0.07	0.22	2.31
45	0.16	0.10	0.36	1.89
50	0.26	0.14	0.61	1.46
55	0.44	0.23	1.01	0.00
60	0.80	0.44	1.63	0.00

*Notes: 55% of the disability rates shown represent accidental disability.
20% of the accidental disabilities will die from the same cause as the disability.
55% of the death rates represent accidental death.*

SECTION 4: Reporting Information for the Essex Regional Retirement System

Group 4 Rate (%)

Mortality

Age	Male	Female	Disability	Withdrawal
20	0.05	0.03	0.18	2.10
25	0.07	0.03	0.26	1.88
30	0.08	0.04	0.33	1.65
35	0.09	0.05	0.44	1.11
40	0.11	0.07	0.66	0.56
45	0.16	0.10	1.08	0.28
50	0.26	0.14	1.82	--
55	0.44	0.23	--	--
60	0.80	0.44	--	--

*Notes: 90% of the disability rates shown represent accidental disability.
60% of the accidental disabilities will die from the same cause as the disability.
90% of the death rates represent accidental death.*

Retirement Rates:

Rate per year (%)

Age	Groups 1 and 2	Group 4
50 – 54	--	2.0
55	5.0	10.0
56 – 59	3.0	10.0
60 – 61	5.0	30.0
62 – 64	15.0	30.0
65	25.0	100.0
66 – 69	15.0	--
70 – 71	50.0	--
72	100.0	--

SECTION 4: Reporting Information for the Essex Regional Retirement System

Unknown Data for Participants: Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

Percent Married: 75%

Age of Spouse: Female (or male) spouses 3 years younger (or older) than their spouses.

Net Investment Return: 8.50%

Salary Increases:

Age	Present salary as a percent of salary at 65	Annual increase
20	11.13	5.0
25	14.20	5.0
30	18.13	5.0
35	23.14	5.0
40	29.53	5.0
45	37.69	5.0
50	48.10	5.0
55	61.39	5.0
60	78.35	5.0

Includes allowance for inflation of 4½%.

Interest on Employee Contributions: 3.50%

Administrative Expenses: \$900,000 for calendar year 2006, increasing 4.50% per year (previously, \$725,000 for calendar 2004)

2005 Salary: Salary in the data, except for employees missing salaries or for 2005 hires, whose salary was estimated from contributions.

Total Service: Service is calculated from Adjusted Date of Hire reported in the data.

Actuarial Value of Assets: A preliminary actuarial value is first determined by taking the actuarial value of assets at the beginning of the year and adding assumed investment earnings (at the assumed actuarial rate of return) and the net new money during the year (contributions less benefit payments and administrative expenses). Twenty percent of the difference between the market value of assets and the preliminary actuarial value is added to the preliminary actuarial value. In order that the actuarial value not differ to significantly

SECTION 4: Reporting Information for the Essex Regional Retirement System

from the market value of assets, the final actuarial value of assets must be within 20% of the market value of assets.

Actuarial Cost Method:

Entry Age Normal Actuarial Cost Method. Entry Age is the age of the participant at Adjusted Date of Hire. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary.

SECTION 4: Reporting Information for the Essex Regional Retirement System

EXHIBIT VI

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Essex Regional Retirement System included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year: January 1 – December 31

Retirement Benefits

Employees covered by the Contributory Retirement Law are classified into one of four groups depending on job classification. Group 1 comprises most positions in state and local government. It is the general category of public employees. Group 4 comprises mainly police and firefighters. Group 2 is for other specified hazardous occupations. (Officers and inspectors of the State Police are classified as Group 3.)

The annual amount of the retirement allowance is based on the member's final three-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the following table based on the age of the member at retirement:

Age Last Birthday at Date of Retirement			
Percent	Group 1	Group 2	Group 4
2.5	65 or over	60 or over	55 or over
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	--	49
1.8	58	--	48
1.7	57	--	47
1.6	56	--	46
1.5	55	--	45

SECTION 4: Reporting Information for the Essex Regional Retirement System

A member's final three-year average salary is defined as the greater of the highest consecutive three-year average annual rate of regular compensation and the average annual rate of regular compensation received during the last three years of creditable service prior to retirement. The \$30,000 cap on salary used in a benefit determination for any employee hired after January 1, 1979 has been removed.

The maximum annual amount of the retirement allowance is 80 percent of the member's final three-year average salary. Any member who is a veteran also receives an additional yearly retirement allowance of fifteen dollars per year of creditable service, not exceeding three hundred dollars. The veteran allowance is paid in addition to the 80 percent maximum.

Employee Contributions

Employees hired before January 1, 1975 contribute 5 percent of their salary; employees hired after December 31, 1974 and before January 1, 1984 contribute 7 percent; employees hired after January 1, 1984 contribute 8 percent; employees hired after July 1, 1996 contribute 9 percent. In addition, employees hired after December 31, 1978 contribute an additional 2 percent of salary in excess of \$30,000.

Employees hired after 1983 who leave with less than five years of credited service receive no interest on their contributions and employees who leave with five but less than ten years receive one-half the rate of regular interest otherwise payable.

Retirement Benefits (Superannuation)

Members of Group 1, 2 or 4 may retire upon the attainment of age 55. For retirement at ages below 55, twenty years of creditable service is required.

Members who terminate before age 55 with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the system).

Ordinary Disability Benefits

A member who is unable to perform his job due to a non-occupational disability will receive a retirement allowance if he has ten or more years of creditable service and has not reached age 55. The annual amount of such allowance shall be determined as if the member retired for superannuation at age 55, based on the amount of creditable

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service at the date of disability. For veterans, there is a minimum benefit of 50 percent of the member's most recent year's pay plus an annuity based on his own contributions.

Accidental Disability Benefit

For a job-connected disability the benefit is 72 percent of the member's most recent annual pay plus an annuity based on his own contributions, plus additional amounts for surviving children. Benefits are capped at 75 percent of annual rate of regular compensation for employees who become members after January 1, 1988.

Death Benefits

In general, the beneficiary of an employee who dies in active service will receive a refund of the employee's own contributions. Alternatively, if the employee were eligible to retire on the date of his death, a spouse's benefit will be paid the full amount the employee would have received under Option C (previously, two-thirds of the amount). The surviving spouse of a member who dies with two or more years of credited service has the option of a refund of the employee's contributions or a monthly benefit regardless of eligibility to retire, if they were married for at least one year. There is also a minimum widow's pension of \$500 per month, and there are additional amounts for surviving children.

If an employee's death is job-connected, the spouse will receive 72 percent of the member's most recent annual pay in addition to a refund of the member's accumulated deductions, plus additional amounts for surviving children. However, in accordance with Section 100 of Chapter 32, the surviving spouse of a police officer, firefighter or corrections officer is killed in the line of duty will be eligible to receive an annual benefit equal to the maximum salary held by the member at the time of death.

"Heart And Lung Law" And Cancer Presumption

Any case of hypertension or heart disease resulting in total or partial disability or death to a uniformed fireman or permanent member of a police department is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. Any case of disease of the lungs or respiratory tract resulting in total disability or death to a uniformed fireman is presumed to have been suffered in

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the line of duty, unless the contrary is shown by competent evidence. There is an additional presumption for uniformed firemen that certain types of cancer are job-related if onset occurs while actively employed or within five years of retirement.

Options

Members may elect to receive a full retirement allowance payable for life under Option A. Under Option B a member may elect to receive a lower monthly allowance in exchange for a guarantee that at his death any of his contributions not expended for annuity payments will be refunded to his beneficiary. Option C allows the member to take a lesser retirement allowance in exchange for providing his survivor with two-thirds of the lesser amount. Option C pensioners who retire in 1988 or later will have their benefits converted from a reduced to a full retirement if the beneficiary predeceases the retiree.

Post-Retirement Benefits

The Board has adopted the provisions of Section 51 Chapter 127 of the Acts of 1999, which provide that the Retirement Board may approve an annual COLA in excess of the Consumer Price Index but not to exceed a 3% COLA on the first \$12,000 of a retirement allowance. Cost-of-living increases granted prior to July 1, 1998 are reimbursed by the Commonwealth and not reflected in this report.